Industry momentum: An exchange-traded funds approach

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Griffith UNIVERSITY
Queensland, Australia

Griffith Alternative Investments Conference **2018**

Program

23 November
Brisbane, Australia

griffith.edu.au/aiconf

Welcome

Welcome to the Griffith Alternative Investments Conference 2018. This grand event is proudly hosted by the Griffith Centre for Personal Finance and Superannuation, Griffith Business School. We are excited to hold the 2018 event in Brisbane.

Alternative assets and strategies are becoming increasingly important in an investor's portfolio. Griffith University and its team of researchers have a respectable track record in the field of alternative investments. Our researchers have expertise in the areas of infrastructure, commodities, energy markets, carbon markets, socially responsible investing (SRI) and active alternative strategies.

This conference aims to bring the world's best researchers and industry professionals together to share the latest research and new ideas in this important segment of the finance industry. We hope you enjoy the conference and please contact me if you require further information on the topics and research papers being presented.

Thank you for contributing to the success of this event.

Best regards

Dr Robert Bianchi
Professor of Finance, Griffith University
Conference Director

Program

Friday 23 November 2018
Brisbane Marriott Hotel, 515 Queen Street, Brisbane

8.30 am	**Registration and refreshments**		**Queen Adelaide Room**
9.00 am	**Welcome** Professor Fabrizio Carmignani Dean (Academic), Griffith Business School		
9.15 am	**Keynote presentation** Hedge fund operational due diligence: The importance of sports car ownership Professor Stephen Brown New York University Stern School of Business Monash Business School		
10.15 am	**Morning tea**		**Pre-function area**
10.45 am	**Session 1A** Queen Adelaide Room (Level 3)	**Session 1B** Atcherley Room (Level 2)	**Session 1C** Jacaranda Room (Level 3)
12.45 am	**Buffet lunch**		**Motion Dining (ground)**
1.45 am	**Session 2A** Queen Adelaide Room (Level 3)	**Session 2B** Atcherley Room (Level 2)	**Session 2C** Jacaranda Room (Level 3)
3.45 pm	**Afternoon tea**		**Pre-function area**
4.15 am	**Keynote presentation** Alternative investments: Past, present and future Mr Mathew Kaleel Portfolio Manager, Diversified Alternatives Janus Henderson Investors Investing in alternative risk premia Dr Scott Pappas Senior Portfolio Manager Cbus Super Fund		
5.15 pm	**Break**		
6.15 pm	**Pre-dinner drinks**		**Queen Adelaide Room**
7.00 pm	**Conference dinner** **Keynote presentation** Other people's money Professor Michael Drew Griffith University Presentation of Best Paper Prize Closing address Professor Robert Bianchi Griffith University		

Concierge, taxi drop off and parking entrance for the Brisbane Marriott Hotel is on 6 Howard Street.

Keynote speakers

Professor Stephen Brown

Professor of Finance, New York University Stern School of Business
Professor of Finance, Monash Business School

Topic: Hedge Fund Operational Due Diligence: The Importance of Sports Car Ownership

Dr Stephen Brown joined the Monash Business School on 1 January 2016. Appointed on a 0.4 basis, he spends four months each year at the Monash Business School while transitioning to Emeritus status as Professor of Finance at New York University Stern School of Business. Before joining New York University in 1986, Stephen worked at Bell Telephone Laboratories during which he spent time on assignment as District Manager at the AT&T Pension Fund, as well as Yale University where he was Associate Professor of Finance.

Stephen is a member of CFA Society Melbourne and CFA Society New York. He has published widely in a range of high quality journals and is the author of five books, two of which have been translated into Japanese. As well as serving on a number of editorial boards, Professor Brown was a founding editor of the *Review of Financial Studies* (A*) and a Managing Editor of the *Journal of Financial and Quantitative Analysis* (A*). Stephen has recently been appointed Executive Editor of the Financial Analysts Journal published by CFA Institute. This journal has a significant impact in the investment management community world-wide, due to its practitioner-relevant focus.

Stephen received his Bachelor of Economics from Monash University and his Master of Business Administration and Doctor of Philosophy in finance from the University of Chicago.

Mr Mathew Kaleel

Portfolio Manager, Diversified Alternatives
Janus Henderson Investors

Topic: Alternative Investments: Past, Present and Future

Mr Mathew Kaleel is a Portfolio Manager, Diversified Alternatives at Janus Henderson Investors. He has held this position since 2013 when he joined Janus Henderson as part of the acquisition of H3 Global Advisors. Mathew started at H3 Global Advisors in 1996 and was instrumental in establishing the firm. During this time, he managed mandates and proprietary capital on behalf of multiple domestic and international banks, family offices, fund of funds, and pension fund clients.

Mathew received a Bachelor's degree in Economics with a focus on accounting and commercial law from Sydney University. He earned a Bachelor of Building (project management) degree from the University of Technology in Sydney, graduating with Honours. He was awarded S&P Emerging Manager of the Year in 2008. He has 23 years of financial industry experience.

Dr Scott Pappas

Senior Portfolio Manager, Cbus Super

Topic: Investing in Alternative Risk Premia

Dr Scott Pappas is a Senior Portfolio Manager at Cbus Super fund. Scott joined Cbus in August 2017 and is responsible for absolute return strategies. Before joining Cbus, he worked as an investment strategist at Vanguard where he led research into factor-based investing. Prior to this, Scott was a portfolio manager at QIC where he was responsible for managing currencies and derivatives.

Dr Scott received his Ph.D. in Finance from Griffith University in 2017. His doctoral thesis focused on Risk Premia and Portfolio Construction and he has publications in both areas. Scott is a CFA charterholder.

Professor Michael Drew

Professor of Finance, Griffith University
Director, Drew, Walk & Co.
Principle, Commercium Stewards

Topic: Other People's Money

Dr Michael Drew is a consulting financial economist specialising in the areas of investment governance, pension plan design, and outcome-oriented investing. Michael is a Director of Drew, Walk & Co., Principal of Commercium Stewards and a Professor of Finance at Griffith University. His research has appeared in leading practitioner journals, including the *Journal of Pension Economics and Finance*, the *Journal of Portfolio Management*, and the *Journal of Retirement*. He has been invited to make submissions and testify before numerous committees, including the US Department of Labor and Securities Exchange Commission joint hearing on Target Date Funds.

Concurrently, Michael serves as a specialist member of the QSuper Investment Committee and is a member of the Investment Advisory Board of the Petroleum Fund of Timor-Leste. Michael received his Ph.D. in the field of economics from the University of Queensland, is an Accredited Investment Fiduciary Analyst™, a Fellow of the Australian Institute of Company Directors, the Governance Institute of Australia and the Queensland Academy of Arts and Sciences and is a Life Member of FINSIA, the Financial Services Institute of Australasia. With his colleague Dr Adam N. Walk, Michael has recently co-authored a new monograph, '*Investment Governance for Fiduciaries*' that will be released in 2019 by the CFA Institute Research Foundation. Michael is currently reading for a DPhil at St Peter's College, University of Oxford in the field of asset allocation and large asset owners.

Breakout sessions

Friday 23 November 2018
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Session 1	10.45 am – 12.45 pm
Session 1A Session Chair: John Fan, Griffith University	Queen Adelaide Room
Smart beta strategies on commodity futures markets Marcel Rothenberger, Macquarie University*	Discussant: Tingxi Zhang, Griffith University
Demystifying commodity futures in China John Fan, Griffith University Tingxi Zhang, Griffith University*	Discussant: Marcel Rothenberger, Macquarie University
Session 1B Session Chair: Robert Bianchi, Griffith University	Atcherley Room
Industry momentum: An exchange-traded funds approach Bruce Vanstone, Bond University* Tobias Hahn, Dayap Logic Pty Ltd Dean Earea, Bond University	Discussant: Robert Bianchi, Griffith University
Financialisation and de-financialisation of commodity futures: A quantile regression approach Robert Bianchi, Griffith University* John Fan, Griffith University Neda Todorova, Griffith University	Discussant: Bruce Vanstone, Bond University
Session 1C Session Chair: Eduardo Roca, Griffith University	Jacaranda Room
Do homeowners over-capitalise? Vito Mollica, Macquarie University Haresh Pardasani, Macquarie University* Stefan Trueck, Macquarie University	Discussant: Eduardo Roca, Griffith University
Credit constraints in the formal markets and firm-level innovation: Evidence from an emerging country Lan Thanh Nguyen, Griffith University* Parmendra Sharma, Griffith University Jen-Je Su, Griffith University	Discussant: Rakesh Gupta, Griffith University

**Presenter*

Breakout sessions continued

Friday 23 November 2018
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Session 2	**1.45 am – 3.45 pm**
Session 2A Session Chair: John Fan, Griffith University	Queen Adelaide Room
A Bayesian real options model for adaptation to catastrophic risk under climate change uncertainty Chi Truong, Macquarie University* Stefan Trueck, Macquarie University Tak Kuen Siu, Macquarie University	Discussant: Ravi Sastry, University of Melbourne
Assessing performance assessment Ravi Sastry, University of Melbourne*	Discussant: Chi Truong, Macquarie University
Session 2B Session Chair: Bin Li, Griffith University	Atcherley Room
Power purchase agreements and solar securitisation: Modelling risk factors and returns Stephen James, Macquarie University Rohan Best, Macquarie University Stefan Trueck, Macquarie University*	Discussant: Rajibur Reza, Griffith University
Ownership, capital structure and performance: Evidence from the global water industry Rajibur Reza, Griffith University* Bin Lin, Griffith University Gurudeo Anand Tularam, Griffith University	Discussant: Stefan Trueck, Macquarie University
Session 2C Session Chair: Graham Bornholt, Griffith University	Jacaranda Room
Commodity futures momentum: Economic risks or behavioural bias? Robert Bianchi, Griffith University* John Fan, Griffith University Tobias Forster-Wright, Griffith University	Discussant: Di Mo, RMIT University
Commodity futures speculation in China John Fan, Griffith University Di Mo, RMIT University* Tingxi Zhang, Griffith University	Discussant: Robert Bianchi, Griffith University

**Presenter*

Smart beta strategies on commodity futures markets

Marcel Rothenberger (Macquarie University)*

Smart Beta strategies are a recent trend primarily developed in equity markets, potentially allowing investors to improve their asset allocation through factor tilting their portfolio. This paper analyses eight smart beta strategies, including equal-weight, low volatility, momentum and term structure strategies for commodity futures markets using a recent dataset of the Commodity Research Bureau. The contribution of this study is threefold: Firstly, it gives an overview which smart beta strategies can be applied to commodity markets. Secondly, these strategies are analysed with respect to their risk and return properties. Lastly, this study also analyses the exposures to known risk factors in equity, bond, and commodity futures markets using a multi-factor regression model. The term structure strategies provide a geometric aver- age excess return of up to 26% p.a., while other smart beta strategies do not generate similar returns. Known risk factors only explain a small fraction of these excess returns. Hence term structure strategies are an attractive investment opportunity and the term structure of commodity futures seems to contain valuable information for investors.

Demystifying commodity futures in China

John Fan (Griffith University) and Tingxi Zhang (Griffith University)*

This paper presents the most comprehensive study to date on commodity futures investing in China. We first document the impact of unique institutional settings overlooked by the extant literature. We investigate the performance of 12 systematic risk premiums from the commodities literature. While passive long-only investments deliver poor economic returns, momentum and term structure strategies generate statistically significant profits in nearby and distant contracts, the most liquid markets and randomly selected commodity sectors. The observed profits cannot be attributed to aggregate market risks, none-tradable macroeconomic risks, commodity-specific risks, market sentiment, transactions costs and data-snooping. We show that liquidity, anchoring bias, and regulation-induced "limits-to-arbitrage" provide at least a partial explanation. We find that long-short strategies that exploit past returns and hedging pressure make excellent candidates for hedging against risks in traditional assets in China. Overall, our findings highlight the distinction between the US and Chinese commodity markets and pose challenges to the existing literature on alternative commodity risk premiums.

Session 1B

Industry momentum: An exchange-traded funds approach

Bruce Vanstone (Bond University)*, Tobias Hahn (Dayap Logic Pty Ltd), Dean Earea (Bond University)

Price momentum is a well-documented anomaly in many of the world's equity markets, and refers to the excess returns due to buying(selling) past winner(loser) stocks. Industry momentum refers to the excess returns due to buying(selling) stocks from past winner (loser) industries and has been demonstrated to be more profitable than individual stock momentum in the US. We investigate whether industry momentum can be captured by investing with Sector ETFs. The performance of Sector ETF-based industry momentum is very different to stock momentum, and the strong performance of an unexpected group of Sector ETF momentum portfolios remain robust after controlling for risk.

Financialisation and de-financialisation of commodity futures: A quantile regression approach

Robert Bianchi (Griffith University)*, John Fan (Griffith University) and Neda Todorova (Griffith University)

This study examines the relationship between commodity futures and global stocks. For the first time, we examine the financialization of commodity futures by employing a quantile regression approach. From 2004-2013, we confirm a strong degree of dependence in energy commodities with moderate effects in metals and lesser magnitudes in agriculturals. During the 2008-2009 global financial crisis, our findings show a strengthening in the financialization of energy commodities while there were weaker effects in agriculturals and a decoupling or de-financialization in metal markets. With the recent closure of commodity trading units in Wall Street in 2013, the findings reveal the de-financialization of metals and agricultural markets from 2014-2017. Overall, our findings cast doubt on the diversification benefit of the energy-dominated commodity indices after 2013. We argue the impact of financialization on commodity futures markets is more permanent than previously thought.

Session 1C

Do homeowners over-capitalise?

Vito Mollica (Macquarie University), Haresh Pardasani (Macquarie University)*, Stefan Trueck (Macquarie University)

This study examines the realized returns of homeowners who undertake significant home improvements compared with those who do not. Using a unique dataset of repeat sales identified by material home improvements, we find that, overall, the cost-adjusted return to households who improve their homes is 2.4% lower than that for owners who make no alterations. Our results are robust across multiple model specifications and additional tests, including sample selection bias. Our findings are consistent with the consumption view of households undertaking home improvements for hedonism and consequently overcapitalization. Further analysis conditioned on the holding term, to identify speculators or flippers, indicates that homeowners who buy, improve, and sell within two years make higher comparable returns (around 5.4%), particularly for extensions and alterations, consistent with speculative motives. Non-speculators, on the contrary, are consumption motive inclined and are either unaware of or undeterred by the possibility that they may be overcapitalizing on home improvements for their distinct utility.

Credit constraints in the formal markets and firm-level innovation: Evidence from an emerging country

Lan Nguyen (Griffith University)*, Parmendra Sharma (Griffith University) and Jen-Je Su (Griffith University)

This study provides an analysis of the linkage between credit constraints and innovation at the firm level by using panel data from the Survey of Manufacturing Small and Medium Scale Enterprises in Vietnam in the period 2005–2013. We apply the two-stage econometric strategy to address the endogeneity issue between credit constraints and innovation arisen from unobserved heterogeneity factors and reverse causality. By categorising credit constraints into three levels, we obtain intriguing findings that, in Vietnam, the impacts of credit constraints on firm-level innovation vary by the level of constraints. Specifically, innovation is fostered by partial constraint but hampered by full constraint. All in all, constrained firms are more likely to start up new projects in future. Policy implications are discussed.

Session 2A

A Bayesian real options model for adaptation to catastrophic risk under climate change uncertainty

Chi Truong (Macquarie University)*, Stefan Trueck (Macquarie University), Tak Kuen Siu (Macquarie University)

We present a novel framework for the valuation of investments to mitigate catastrophic risk of climate impacted hazards. Our model incorporates the impact of uncertainty and continuous Bayesian information updating on investment decisions. We show that the model is relevant even when the time required to resolve uncertainty is indefinite. The model is applied to bushfire risk management in a local area. Our findings suggest that investment based on the net present value (NPV) rule that ignores the value of the investment option results in significant losses. Sensitivity analysis results suggest that the loss is large when the investment cost is high, when the uncertainty resolution is slow, or when the probability belief in climate change is low.

Assessing performance assessment

Ravi Sastry (University of Melbourne)*

This paper derives the sampling distribution of the manipulation-proof performance measure (MPPM) of Ingersoll, Spiegel, Goetzmann, and Welch (2007), and shows that it exhibits low statistical power — as does the Sharpe ratio and other return-based measures. This arises from inherent uncertainty in the parameters of the return distribution. There is no statistical “fix”. Under low power, it is difficult to distinguish between good and bad funds. Statistically significant results are unlikely and, conditional on significance, estimates are likely to be substantially larger than their true values. The exaggeration ratio can exceed 1000 with conservative parameter values.

Session 2B

Power purchase agreements and solar securitisation: Modelling risk factors and returns

Stephen James (Macquarie University), Rohan Best (Macquarie University), Stefan Trueck (Macquarie University)*

There has been substantial growth in the number of solar photovoltaic installations in Australia. This paper examines the possibility of growing rooftop electricity through Power Purchase Agreements (PPA), with capital provided through an Asset Backed Security (ABS). It extends the existing literature on securitisation of solar photovoltaic assets by using an ABS structure with three investment tranches with different risk profiles; introducing lithium-ion batteries; and using real NSW consumption and production data. The study assesses the viability of a PPA ABS through an empirical analysis of benefits to the PPA consumers, the originator of the ABS and investors.

Ownership, capital structure and performance: Evidence from the global water industry

Rajibur Reza (Griffith University)*, Bin Li (Griffith University), Gurudeo Anand Tularam (Griffith University)

We examine the impact of ownership and capital structure on water companies' performance during different (full, pre-GFC, GFC and post-GFC) periods, using multivariate and panel regression analysis. The findings contribute towards a better understanding of financing behaviour of the 72 water companies by examining them over a number of the period 2004 to 2014. We compare and contrasts the relationships between performance and ownership structure (Foreign ownership and institutional ownership), capital structure (Leverage and short term debt to assets). Our results indicate that foreign ownership improves financial performance of the global water industry in different periods of strain and stress. Our results suggest that either "leverage" could be chosen more for conforming to water companies' regulatory requirements; or "short term debt to assets" which is for a short time. It is noted that most of the companies use debt when they are in global financial crisis (GFC). During the GFC period, the water companies were affected by the crisis and used debt. Overall, the results show that ownership and capital structure jointly affect the performance.

Commodity futures momentum: Economic risks or behavioural bias?

Robert Bianchi (Griffith University)*, John Fan (Griffith University), Tobias Forster-Wright (Griffith University)

The sources of return and risk in commodity futures momentum remain elusive due to the dynamic nature of this investment strategy. This study employs both behavioural (market states) and a risk-based (return dispersion) frameworks to extend our understanding of commodity momentum returns. We show that market states capture the profitability of the 52-week high commodity momentum strategy. We also find that return dispersion predicts cross-sectional and time-series momentum in commodity futures. We show that these two momentum strategies exhibit procyclical characteristics with business conditions. Our analysis suggests there are two broad types of commodity momentum strategies. The first type of commodity futures momentum is behavioural in nature (52-week high) while the second group are linked to risk-based explanations (cross-sectional and time series).

Commodity futures speculation in China

John Fan (Griffith University), Di Mo (RMIT University)*, Tingxi Zhang (Griffith University)

The burst of recent stock market bubbles along with the tightening of regulations stirred investors in China away from domestic stocks into the rapidly emerging commodity futures markets. Enormous inflows of capital raised concerns about the impact of speculative activities in these markets. Using a broad sample of 30 commodities from 2004 to 2017, this paper investigates whether the increased presence of speculators in recent years destabilize the commodity futures market in China. Our findings suggest that speculative activities in the most heavily traded commodities, on an aggregate level, do not cause increase in the volatility of the broad market nor do they elevate the cross-market correlations with traditional assets. However, we find evidence that speculation increases the volatility of commodities in a dynamic long-short setting. In this setting, we show that increased presence of speculators causes the correlations to increase with stocks and weaken with macroeconomic activities. Our findings suggest additional regulations on passive index-like investors are unwarranted, as they add liquidity and facilitate the price discovery and risk transfers in these markets.

Research for an evolving and challenging financial future

Griffith Centre for Personal Finance and Superannuation

The Griffith Centre for Personal Finance and Superannuation is an academic centre within Griffith Business School, Griffith University.

The Centre is a source of expertise on, and a centre of excellence in, the areas of personal finance and superannuation, investment, professionalisation of financial services, and financial education.

Our research excellence is driven by the comprehensive approach we give to all our projects. We integrate the expertise of our highly qualified team of academics and researchers, industry experience and the knowledge drawn from different disciplines including finance, financial planning, economics, accounting, business law and taxation. Our members undertake innovative and high quality research projects, and advise national and international organisations on the strategic and technical aspects of financial decision-making.

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